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## Claims

1. Use of at least one penicillin for the production of pharmaceutical for  
therapeutic use in autoimmune diseases or other pathological  
situations where IFN $\gamma$ -mediated effects are involved in the  
progression of the disease.
2. Use according to claim 1, wherein the penicillin is PenG or PenV.
3. Use of a hapten-modified peptide for the production of a  
pharmaceutical for therapeutic use in autoimmune diseases or other  
pathological situations where IFN $\gamma$ -mediated effects are involved in  
the progression of the disease  
characterized in that it contains a backbone of amino acids wherein  
to at least one of these amino acids a penicillin antibiotic is bound.
4. Use of a hapten-modified peptide for the diagnostic determination of  
a predisposition for hypersensitivity reactions against penicillins or  
parts or derivatives thereof,  
characterized in that it contains a backbone of amino acids wherein  
on at least one of these amino acids a penicillin antibiotic is bound.
5. Use according to claim 4, wherein PBMC cells are isolated from  
patients for whom a predisposition for hypersensitivity reactions is  
to be determined, the cells are stimulated in vitro by addition of the  
hapten-modified peptide and proliferation of antigen responsive T  
cells is measured.
6. Use according to claims 4 or 5, wherein IFN $\gamma$  and/or IL4 expression  
are measured.

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7. Use of a hapten-modified peptide for the desensitization of patients suffering from hypersensitivity reactions against penicillins or parts of derivatives thereof characterized in that it contains a backbone of amino acids wherein on at least one of these amino acids a penicillin antibiotic is bound.
8. Use according to anyone of claims 3 to 7, wherein the penicillin antibiotic is penicillin G, penicillin V or ampicillin.
9. Use according to anyone of claims 3 to 8, wherein the amino acid backbone consists of 8 to 20 amino acids, preferably 10 to 18 amino acids.
10. Use according to anyone of claims 3 to 9, wherein the amino acid backbone contains at least one lysine onto which the antibiotic is bound.
11. Use according to anyone of claims 3 to 10, wherein the antibiotic is bound to amino acids at position 3, 5 or 8 starting from a tyrosine anchor.
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